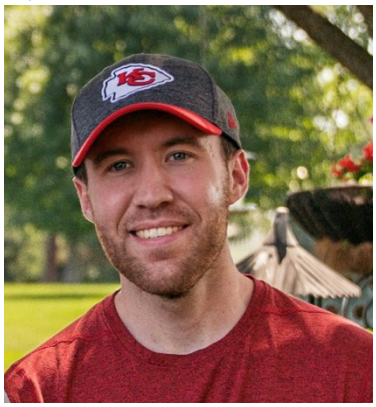
West Lake Update

September 30, 2022

Introducing James Curry; Operable Unit 1 Field Work and Rain Event; Operable Unit 3 Field Work Update

Introducing James Curry



James (J.P.) Curry is a recent graduate from the University of Kansas, earning a Bachelor of Science in civil engineering with an environmental emphasis. He started with EPA as an intern in May 2021, and upon graduation, he accepted a full-time position as a remedial project manager in the Superfund and Emergency Management Division. J.P. has joined EPA's West Lake Landfill team, providing additional technical and field support to all operable units. He is excited to be part of the team and is looking forward to working on a project of regional significance. In his free time, J.P enjoys walking his dog, Koda, watching Kansas City Chiefs football, and spending time with family and friends.

Operable Unit 1 Field Work and Rain Event

Operable Unit 1 (OU-1) is comprised of the areas at West Lake Landfill that have radiological contamination. A historical rain event in Bridgeton, Missouri, on July 26, 2022, caused some overnight flash flooding at the West Lake Landfill. EPA Region 7 had two remedial project managers assess the conditions at the site. The EPA team did not identify any potential impacts to public health as a result of the rain event at the West Lake Landfill. Erosion of the protective rock cover was identified in some locations of Operable Unit 1. However, the geotextile that underlies the rock cover and helps filter stormwater and reduce the migration of small particulates remained intact and did not sustain any damage. Repairs to the damaged portions of rock cover were initiated the day after the rain event by the PRPs and were completed by July 28. Stormwater sampling was performed in drainage areas around the landfill immediately following the storm event. EPA anticipates receiving those laboratory results in about six weeks. The storm event did delay some design investigation drilling and sampling activities; however, that work was rescheduled for the last half of August 2022 and all but one boring has now been completed. EPA is awaiting laboratory results to determine if additional samples will be necessary.

Operable Unit 3 Field Work Update

Operable Unit 3 (OU-3) is the designation used to refer to sitewide groundwater. In October 2020, EPA approved the OU-3 Remedial Investigation/ Feasibility Study (RI/FS) Work Plan to investigate potential groundwater contamination associated with the site. A comprehensive groundwater monitoring well network was proposed during the RI/FS, so that all aspects of groundwater can be thoroughly evaluated. Field work to support the RI/FS began in November 2020 and included a drilling program to install on-site and off-site groundwater monitoring wells and an intensive data gathering program, known as high-resolution site characterization, to better understand subsurface geology and groundwater flow. All drilling and well installation field work for the currently proposed groundwater monitoring well network was completed on Aug. 12, 2022.

A total of 40 new wells with 91 individual sampling ports were installed during the OU-3 well drilling and installation program. Wells were completed as either single-screen wells that sample a single depth interval below ground surface, or as multi-level wells with sampling ports at up to five discrete depth intervals below ground surface. Each sampling interval was determined based upon real-time interpretation of data collected in the field. At each well location, the soil core was logged during

drilling, and once drilling reached the target depth, a variety of geophysical tools were deployed in the borehole that provided geologic, hydrogeologic, and groundwater chemistry information. This information was used collectively to select the well screen placements.

Between the new wells and the previously existing wells, there are a total of 120 monitoring wells with 171 discrete sampling points. Monitoring wells were installed both on-site and off-site, and well depths range from 15 feet below ground surface to more than 400 feet below ground surface. Some off-site wells, known as background wells, were installed in locations anticipated to be unaffected by the landfill and upgradient or side-gradient of the presumed groundwater flow path. These background wells are intended to produce groundwater quality samples that are unaffected by the site and can be compared to site data to help identify potential landfill impacts to groundwater. The complete groundwater monitoring well network is illustrated on the figure included with this update.

Groundwater sampling of the existing wells started in November 2020 and continued on a quarterly basis while new well installation activities were ongoing. The first round of quarterly sampling with all site wells was completed in August 2022. Quarterly groundwater sampling will continue for at least seven more quarters to help evaluate seasonal effects on groundwater quality and flow direction. The need for additional step-in/step-out monitoring well locations will be evaluated throughout the groundwater monitoring program. If data indicates additional wells are needed, the PRPs will submit a proposal to EPA for review and approval.

While groundwater sampling continues, the PRPs are also working on development of a Groundwater Modeling Work Plan to help evaluate groundwater flow and contaminant movement and behavior in the groundwater. Work on the Well Inventory Summary Report, which identifies any private or industrial wells in the area, is also ongoing. Once quarterly groundwater monitoring and groundwater model development are complete, a Baseline Risk Assessment Work Plan will be prepared and submitted to EPA for review and approval. A Remedial Investigation Report will then be submitted to summarize all the findings of the RI process and provide information to assess the risks to human health and the environment. If warranted, the RI will also support the development, evaluation, and selection of appropriate response alternatives, which would be documented in a Feasibility Study.

During the entirety of the field work, EPA has provided a presence on-site, observing field activities conducted to ensure they are performed in accordance with the approved Work Plans. The Missouri Department of Natural Resources and the U.S. Geological Survey have also provided field oversight support to EPA for OU-3.

West Lake Community Liaison: EPA's acting West Lake Landfill community liaison, Jessica Evans, will be available at the Bridgeton Trails Branch library on Tuesday, Oct. 11 from 6 to 8 p.m. to listen and answer questions about the site. Additionally, Jessica is available every week at City Hall to speak with the public. Please call Jessica Evans at 314-296-8182 for details.

Site Resources

West Lake Dashboard
Superfund Site Profile

Find us on

Facebook
Twitter

For additional information regarding the site please contact EPA Region 7 at 314-296-8182.